PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE INSTALLATION OF A NEW TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF U.S. 301 AND ROSEWICK ROAD IN CHARLES COUNTY, MARYLAND. U.S. 301 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION. THE TRAFFIC SIGNAL WILL BE INSTALLED AS PART OF CHARLES COUNTY GOVERNMENT PROJECT PGM-#VC103-1-035.

INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA FOUR-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH THE U.S. 301 APPROACHES OPERATING CONCURRENTLY AND THE ROSEWICK ROAD APPROACH OPERATING ALONE.

EXCLUSIVE LEFT-TURN PHASING IS PROVIDED FOR THE SOUTHBOUND U.S. 301 APPROACH.

CONTROLLER REQUIREMENTS

INSTALL A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER WITH FOUR (4) FOUR-CHANNEL, TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIERS AND SYSTEM PACKAGE HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET.

PHONE DROP

UPON COMPLETION OF THIS PROJECT, THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF SHA AT (410) 787-7635 TO ARRANGE FOR THE PHONE LINE INSTALLATION. THE CONTRACTOR IS TO PROVIDE MR. SNYDER THE NEAREST STREET ADDRESS, ZIP CODE, AND PHONE NUMBER.

MAINTENANCE OF TRAFFIC

THE FOLLOWING TRAFFIC CONTROL STANDARDS SHALL BE REFERENCED FOR THE PROJECT.

STANDARD NO. MD-104.04-05 (RIGHT LANE CLOSURE)
STANDARD NO. MD-104.04-03 (LEFT LANE CLOSURE)
STANDARD NO. MD-104.04-13 (INTERSECTION TURN BAY LANE CLOSURE)
STANDARD NO. MD-104.04-01 (SHOULDER WORK)

PROJECT CONTACTS

THE CONTACT PERSONS FOR SHA ARE AS FOLLOWS:

MS. KIM TRAN
ASSISTANT DISTRICT ENGINEER - TRAFFIC
PHONE: (410) 841-1013

MR. CHUCK E. GEORGE
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
PHONE: (410) 841-1019

MR. JOHN MAYS
DISTRICT UTILITY ENGINEER
PHONE: (410) 841-1039

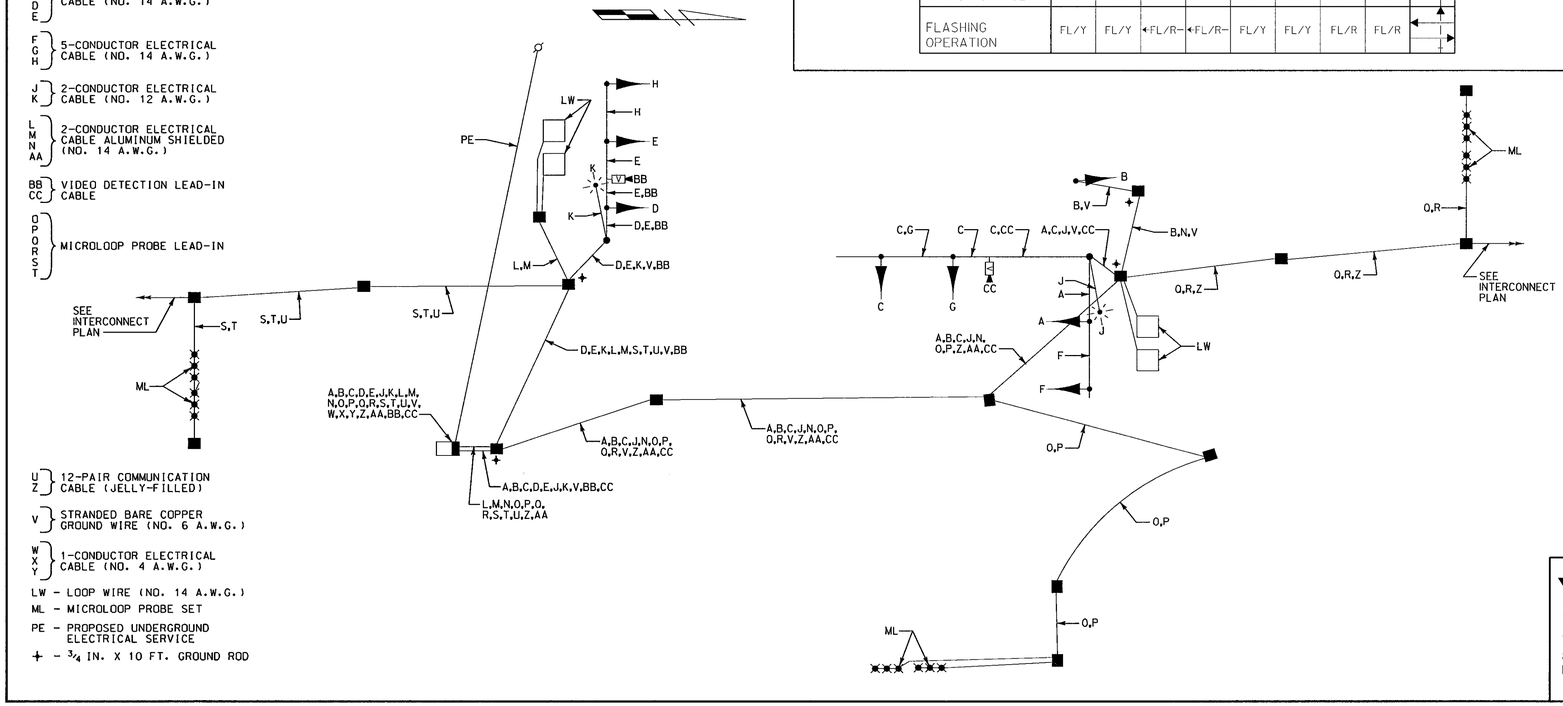
MR. RICHARD L. DAFF, SR.
CHIEF, TRAFFIC OPERATIONS DIVISION
PHONE: (410) 787-7630

WIRING DIAGRAM

WIRING KEY

- A, B, C, D, E — 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- F, G, H — 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- J, K — 2-CONDUCTOR ELECTRICAL CABLE (NO. 12 A.W.G.)
- L, M, N, AA — 2-CONDUCTOR ELECTRICAL CABLE ALUMINUM SHIELDED (NO. 14 A.W.G.)
- BB, CC — VIDEO DETECTION LEAD-IN CABLE
- O, P, Q, R, S, T — MICROLOOP PROBE LEAD-IN
- U, Z — 12-PAIR COMMUNICATION CABLE (JELLY-FILLED)
- V — STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
- W, X, Y — 1-CONDUCTOR ELECTRICAL CABLE (NO. 4 A.W.G.)

LW - LOOP WIRE (NO. 14 A.W.G.)
ML - MICROLOOP PROBE SET
PE - PROPOSED UNDERGROUND ELECTRICAL SERVICE
⏚ - ¾ IN. X 10 FT. GROUND ROD



EQUIPMENT LIST "A"

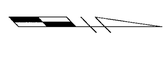
A. EQUIPMENT TO BE SUPPLIED BY THE SHA

QUANTITY	DESCRIPTION
4 EACH	FOUR-CHANNEL, TIME-DELAY-OUTPUT, LOOP DETECTOR AMPLIFIER
1 EACH	EIGHT-PHASE, FULL-TRAFFIC-ACTUATED CONTROLLER WITH SYSTEM PACKAGE HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET
1 EACH	VIDEO DETECTION INTERFACE EQUIPMENT: 1-4 CAMERAS
229 S.F.	SHEET ALUMINUM SIGNS TO CONSIST OF :
	- 2 EACH — R3-5L SIGN (30 IN. x 36 IN.) - MAST ARM MOUNT
	- 3 EACH — D-3(1) SIGN (VARIABLE x 16 IN.) DUAL FACED - MAST ARM MOUNT
	- 4 EACH — W3-3 SIGN (48 IN. x 48 IN.) WITH "NEW" PANEL (30 IN. x 30 IN.) AND FLAG - GROUND MOUNT
	- 4 EACH — D-3(2) "ROSEWICK RD" SIGN (96 IN. x 16 IN.) - GROUND MOUNT
	- 1 EACH — ASSOCIATED SHIELD ASSEMBLY "NORTH, U.S. 301, RIGHT ARROW" (30 IN. x 51 IN.) - POLE MOUNT
	- 1 EACH — ASSOCIATED SHIELD ASSEMBLY "SOUTH, U.S. 301, LEFT ARROW" (30 IN. x 51 IN.) - POLE MOUNT
	- 1 EACH — ASSOCIATED SHIELD ASSEMBLY "SOUTH, U.S. 301, RIGHT ARROW" (30 IN. x 51 IN.) - POLE MOUNT
	- 1 EACH — ASSOCIATED SHIELD ASSEMBLY "NORTH, U.S. 301, LEFT ARROW" (30 IN. x 51 IN.) - POLE MOUNT

EQUIPMENT LIST "C"

NO EQUIPMENT TO BE REMOVED AND RETURNED TO SHA

PHASE CHART



PHASE 2 + 5	R	R	←G—	←G—	G	G	R	R	
2 + 5 CHANGE	R	R	←Y—	←Y—	G	G	R	R	
PHASE 2 + 6	G	G	←R—	←R—	G	G	R	R	
2 + 6 CHANGE	Y	Y	←R—	←R—	Y	Y	R	R	
PHASE 4 + 8	R	R	←R—	←R—	R	R	G	G	
4 + 8 CHANGE	R	R	←R—	←R—	R	R	Y	Y	
FLASHING OPERATION	FL/Y	FL/Y	←FL/R—	←FL/R—	FL/Y	FL/Y	FL/R	FL/R	

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

QUANTITY	DESCRIPTION
LUMP SUM	MAINTENANCE OF TRAFFIC
3 C.Y.	TEST PIT EXCAVATION
110 L.F.	24 INCH WHITE HEAT APPLIED PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING
120 L.F.	REMOVAL OF EXISTING PAVEMENT LINE MARKINGS - ANY WIDTH
24 EACH	12 IN. VEHICULAR TRAFFIC SIGNAL HEAD SECTION
2 EACH	15 FOOT LIGHTING BRACKET ARM FOR TRAFFIC SIGNAL STRUCTURE
2 EACH	250 WATT HPS LUMINAIRE WITH PHOTOCELL
1 EACH	ELECTRICAL UTILITY SERVICE EQUIPMENT (120/240 V 60 AMPS)
2 EACH	MICROLOOP PROBE SET WITH 1,000 FOOT LEAD-IN CABLE
1 EACH	TWIN MAST ARM POLE AND 50 FT. MAST ARM
1 EACH	TWIN MAST ARM POLE AND 50 FT./70 FT. MAST ARMS
1 EACH	FURNISH AND INSTALL PEDESTRIAN POLE (ANY SIZE)
LUMP SUM	REMOVE AND DISPOSE OF EXISTING MATERIAL AND EQUIPMENT
285 L.F.	3 IN. SCHEDULE 80 RIGID PVC CONDUIT - BORED
30 L.F.	2 IN. SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
1210 L.F.	3 IN. SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
145 L.F.	4 IN. SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
135 L.F.	4 IN. SCHEDULE 80 RIGID PVC CONDUIT - BORED
13 C.Y.	CONCRETE FOR SIGNAL FOUNDATION
72 L.F.	WOOD SIGN SUPPORTS 4 IN. x 6 IN.
120 L.F.	1 INCH LIQUID TIGHT FLEXIBLE NON-METALLIC CONDUIT FOR DETECTOR WIRE SLEEVE
16 EACH	FURNISH AND INSTALL ELECTRICAL HANDHOLE
136 S.F.	INSTALL GROUND MOUNTED SIGN
93 S.F	INSTALL OVERHEAD SIGN
4 EACH	GROUND ROD - ¾ INCH DIAMETER x 10 FOOT LENGTH
410 L.F.	NO. 6 A.W.G. STRANDED BARE COPPER GROUND WIRE
45 L.F.	ELECTRICAL CABLE - 1 CONDUCTOR NO. 4 A.W.G - THHN/THWN
900 L.F.	ELECTRICAL CABLE - 2 CONDUCTOR (ALUMINUM SHIELDED)
75 L.F.	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 A.W.G)
1470 L.F.	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 A.W.G)
495 L.F.	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 A.W.G) TYPE TC
625 L.F.	LOOP WIRE ENCASED IN ¼ INCH FLEXIBLE TUBING (NO. 14 A.W.G)
220 L.F.	SAW CUT FOR SIGNAL (LOOP DETECTOR)
1 EACH	INSTALL CONTROLLER AND CABINET - BASE MOUNT
2 EACH	VIDEO DETECTION CAMERA
1 EACH	CONTROL CABLE, 200 FT., VIDEO DETECTION
1 EACH	CONTROL CABLE, 400 FT., VIDEO DETECTION
4 EACH	NON INVASIVE DETECTOR, 1000 FT. LEAD-IN CABLE
775 L.F.	TRAFFIC BARRIER W BEAM
24 EACH	TRAFFIC BARRIER W BEAM POST NORMAL 6 FT. LENGTH
2 EACH	TYPE C TRAFFIC BARRIER END TREATMENT
2 EACH	TYPE I TRAFFIC BARRIER END TREATMENT

TSP-2

WR&A
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801 South Caroline Street
Baltimore, Maryland 21231
(410) 235-3450

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
GENERAL INFORMATION SHEET
U.S. 301 (CRAIN HWY) AND ROSEWICK ROAD

DRAWN BY:	S. BLOSS	F.A.P. NO.		TS NO. 4343-62	SG-2
CHECKED BY:	N. LEARY	S.H.A. NO.			SHEET NO.
SCALE:	NONE	COUNTY:	CHARLES	T.I.M.S. NO. G285	44 OF 60
DATE:	7/19/2004	LOG MILE:			

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